

LISTING OF THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) An area array type package stack comprising:
at least two packages of area array type disposed to form a stack, each package including
a substrate having a first face and a second face opposing the first face, ~~there~~
~~being~~ a plurality of terminal pads and a plurality of connecting pads formed on the second face,
and
a semiconductor chip attached to the first face of the substrate and electrically
connected to the terminal pads and the connecting pads; and
at least one flexible cable having a plurality of conductive patterns thereon extending
around at least one side edge of a lower one of the at least two packages, and electrically
coupling the connecting pads of the packages through the conductive patterns.
2. (Original) The area array type package stack of claim 1, wherein the semiconductor chip
is a center pad type chip.
3. (Original) The area array type package stack of claim 2, wherein the substrate further has
first wirings providing electrical paths coupling the semiconductor chip and the terminal pads
and second wirings providing electrical paths coupling the semiconductor chip and the
connecting pads.

4. (Original) The area array type package stack of claim 1, wherein the semiconductor chip is an edge pad type chip.
5. (Original) The area array type package stack of claim 4, wherein the substrate further has first wirings providing electrical paths coupling the semiconductor chip and the terminal pads, second wirings including vias providing electrical paths coupling the semiconductor chip and the connecting pads.
6. (Original) The area array type package stack of claim 5, wherein the vias are located in immediate proximity to the connecting pads.
7. (Original) The area array type package stack of claim 1, wherein the connecting pads are arranged in a straight row near an edge of the substrate.
8. (Original) The area array type package stack of claim 1, wherein the connecting pads are arranged in a staggered row near an edge of the substrate.
9. (Original) The area array type package stack of claim 1, further comprising a plurality of external connection terminals formed on the terminal pads of a lowermost package of the packages.
10. (Original) The area array type package stack of claim 1, further comprising a non-conductive adhesive layer interposed between adjacent lower and upper packages.

11. (Original) The area array type package stack of claim 1, wherein each area array type package is a ball grid array package.

12. (Original) A method for manufacturing an area array type package stack, the method comprising:

providing a first individual package of an area array type (AAT) on a flexible cable; wherein connecting pads under the AAT package are electrically connected to conductive patterns on the flexible cable;

bending the flexible cable to extend around at least one side edge of the package; and stacking a second individual AAT package on the first AAT package, wherein connecting pads under the second package are electrically connected to the conductive patterns on the flexible cable.

13. (Original) The method of claim 12, further comprising providing a non-conductive adhesive material between the first and second packages.

14. (Original) The method of claim 12, further comprising forming a plurality of external connection terminals under the first package.

15. (Original) A method for manufacturing an area array type package stack, the method comprising:

providing a first package of an area array type (AAT) on a flexible cable, wherein connecting pads under the package are electrically connected to conductive patterns on the flexible cable;

forming an adhesive layer under the first package;

attaching a second AAT package to the first package by the adhesive layer; and

bending the flexible cable to extend around at least one side edge of the second AAT package wherein connecting pads under the second package are electrically connected to the conductive patterns on the flexible cable.

16. (Original) The area array type package stack of claim 3, wherein the first wirings are formed on the second face of the substrate.

17. (Original) The area array type package stack of claim 5, where the first wirings are arranged on the first face of the substrate and the second wirings are arranged on the second face of the substrate.